

REMARKS

The Examiner objects to the drawings.

Amendments in the Claims have been proposed which clarify the designations of "hot zone" and "intermediate zone."

The Examiner questions the claimed features "duct adapted to supply agents" and "supply interrupt mechanism." These features are shown as elements 2 and 1, respectively in drawing Figure 1.

No new matter has been added.

It is asserted that the objections to the drawings have been obviated by the proposed drawing amendments and the amendments in the Claims.

The Examiner objects to the description on formal grounds. These objections have been addressed by amendments to correct typographical errors.

Claims 1-4, 6-7, and 9-17 have been rejected under 35 U.S.C. § 112.

The Claims have been amended to more clearly set out the zones.

The intermediate zone and other zones are disclosed at page 3, lines 3-35 and page 4, lines 1-4 of the original specification.

The duct is disclosed at page 3, line 20.

The supply interrupt mechanism is disclosed as the valve 1.

The Examiner rejects Claims 1-2, 11-12, and 16-17 under 35 U.S.C. § 102(b) in view of *Bayer*.

The bed 42 of *Bayer* does not disclose the structure which is set out in the present claims, in particular with respect to the temperature-lowering structure of the claimed intermediate matrix zone. *Bayer* does not disclose both the catalyst and hot zone for self-decomposition in the same equipment. *Bayer* is only a catalytic process.

The claimed elements are not found in *Bayer*. For this reason, this rejection should be withdrawn.

The Examiner rejects Claims 1-4, 6-7, and 9-17 in view *Gribbon* and *Bayer*.

Bayer teaches that the catalyst layer is designed to be a supplement to the regenerative heat transfer material such that heat loss is reduced substantially in comparison to a normal catalyst. See column 2, lines 11-18, column 1, line 68, and column 2, line 3. *Bayer* teaches operating at temperatures substantially lower than those for purely thermal reactions. In the background description, column 1, lines 10-13, it is stated that the temperature for thermal regenerative oxidation is in the range of 1400°F -1900°F. Catalytic recuperative oxidation is stated to be in the range of 500°F -700°F in column 1, lines 13-16. In the summary of the invention it is stated that the equipment operates at relatively low oxidation temperatures, see column 1, lines 30-32. This means that the high temperatures which are necessary for self-decomposition of the emissions are never reached. More evidence of this is found in column 1, lines 59-60, where it is stated that oxidation is taking place in the catalyst layer. In column 3, lines 30-34, it is stated that the temperature which regulated is the one in at least one of the catalysts. In column 4, lines 3-8, it is stated that the gases reach the highest temperatures when entering the upper catalyst layer where most of the oxidation occurs.

These statements evidence the fact that no self-decomposition takes place in the equipment of *Bayer*. This is in stark contrast to the invention set out in Claim 1 of the present invention. The means for heating that are provided are there merely to keep the temperature up at the required levels for the catalytic reaction to take place in *Bayer*. These temperatures as earlier have been described, being substantially lower than the ones required for self-decomposition. Further, the equipment of *Bayer* is aimed at decomposing volatile organic compounds instead of nitrogen oxides.

There is no motivation to provide bed material in the region between the heating means and the catalytic zone of *Bayer* to make sure that the heat and the heat front which is produced in the hot zone by either the heating means or the self-decomposition process itself, is kept outside the range of the catalytic zone. However, there has been no documents presented that incorporate both processes in a manner such as the one of the presently claimed invention. *Gribbon* teaches a burner 28 and two catalysts 22, 24. In column 1, lines 45-50, *Gribbon* states that the reduction reaction frequently at temperatures ranging from 500°F -700°F in the presence of a selective catalyst. Since

the arrangement according to *Gribbon* utilizes a catalyst, the temperature will not extend beyond 700°F, and no self-combustion temperature level is reached. Accordingly, there is no need for an intermediate temperature-lowering zone to be provided to the *Gribbon* arrangement, and hence no such zone is shown at all.

Applicant asserts that there is no teaching in *Gribbon* and *Bayer* which could be combined to arrive at the presently claimed invention.

CONCLUSION

Applicant asserts that all of the objections have been overcome, and now respectfully requests withdrawal of those objections, and an allowance of this application.

SMALL ENTITY STATEMENT

The Applicant in this case is a small entity.

REQUEST FOR EXTENSION OF THE TERM

Applicant respectfully requests an extension of the normal term that expired on 15 September 2005, for three months, to 15 December 2005.

A check for \$510 to cover the cost of the extension is enclosed. Any deficiency or overpayment should be charged or credited to Deposit Account Number 04-2219, referencing our Docket Number 11761.

Respectfully submitted,

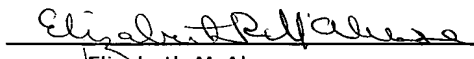


Keith H. Orum
Attorney Registration No. 33985
Attorney for Applicant

ORUM & ROTH LLC
53 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604-3606
TELEPHONE: (312) 922-6262

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Alexandria, VA 22313-1450, on 12 December 2005.


Elizabeth McAleese